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10/635,273	08/06/2003	Joshua Hartmann	043474/.267956	1358

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EXAMINER
SALIARD, SHANNON S

ART UNIT	PAPER NUMBER
3639	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/635,273	HARTMANN ET AL.
	Examiner	Art Unit	
	Shannon S. Saliard	3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*11 April 2006*</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-21,23-32,34-66,68-73,75-81 and 83-89* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-21,23-32,34-66,68-73,75-81 and 83-89* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*4/11/06*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   Applicant has amended claims 1, 3, 5, 6, 8, 9, 1421, 23, 24, 26-32, 34, 36-43, 45, 47-52, 65, 68-73, 75-80, and 83-85. Claims 4, 22, 33, 67, 74, and 82 have been cancelled. No claims have been added. Thus claims 1-3, 5-21, 23-32, 34-66, 68-73, 75-81, and 83-89 remain pending are presented for examination.

Drawings

2.   The drawings were received on 11 April 2006. These drawings are accepted.

Response to Arguments

3.   Applicant's arguments and amendments, filed 11 April 2006, with respect to rejections of claims 1, 5, 6, 8, 14, 16-20, 23, 24, 26, 27, 29-31, 34, 36, 37, 39-43, 45, 47-52, 65, 69-73, 76-81, 84-86, and 88 under 35 U.S.C. 112, Second Paragraph have been fully considered and are persuasive. The rejections of claims 1, 5, 6, 8, 14, 16-20, 23, 24, 26, 27, 29-31, 34, 36, 37, 39-43, 45, 47-52, 65, 69-73, 76-81, 84-86, and 88 under 35 U.S.C. 112, Second Paragraph have been withdrawn.

4.   Applicant's arguments, filed 11 April 2006, with respect to rejections of claims 1, 20, 31, 41, 47, and 50 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Smith et al.

5.   Applicant's arguments filed 11 April 2006 have been fully considered but they are

not persuasive.

6.   In response to applicant's argument (with respect to claims 53, 57, and 61) that

Fay et al and McKeeth do not teach updating a large cache of data based on the

popularity of the data. However, Examiner submits, that Fay et al discloses that

"features may be added to the system, in order to enhance the system's

functionality...counts the number of sells against the flight availability data stored in the

cache database to determine if a trip needs to be updated ...still other features may be

added to clean and verify the flight availability data in the cache database" [0060].

Thus, Fay et al is related to the updating of large amounts of data in a cache.

Furthermore, McKeeth et al discloses "Fig. 3 is a flowchart depicting a process of

determining whether and when to update one or more links by the search engine server.

The process is one way of constructing or updating the link list in the queue...the

controller selects the links on the basis of a "popularity" parameter...the controller may

select a link from a group of links in the link database determined to be the most popular

links." [0031]. McKeeth further discloses "in another embodiment, link_pop may be the

number of times that a link is selected by the search engine server as a search result in

response to user queries...[0034]." Moreover, McKeeth discloses "the method may

comprise determining the popularity of each of the plurality of links...the method may

further comprise determining whether the popularity of the link exceeds a predetermined

popularity threshold, the method may further include updating information associated

with the link, provided that the popularity exceeds the popularity threshold." [0011].

McKeeth also discloses "the link database may conveniently reside in the memory or it may be located in another memory accessible by the search engine server...the memory conveniently connected to the processor, may be in the form of a cache memory for rapid access to the cached (i.e., stored) information" [0026]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the system disclosed by McKeeth to improve the freshness of the contents in the database.

7.   Applicant's arguments, filed 11 April 2006, with respect to rejections of claims 65, 73, and 80 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9.   **Claims 1, 5, 6, 8, 14, 20, 23, 24, 26, 31, 34, 36, 41, 45, 47, 50, 53, 57, 61, 65, 71, 73, and 78-80** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per **claims 1, 20, 31, 41, 47, 50, 65, 73 and 80**, the limitation "a method for providing product availability information to a user from at least one product source, where use of a product may begin on one of a plurality of different start dates" as recited

is vague and indefinite. The preamble of the claim promises the use of a product, however there is no use of the product recited in the claim.

As per **claims 1, 20, 31, 41, 47, 50, 65, 73 and 80**, the limitations "storing the product availability information received from the product source in a storage device" and "accessing the information prestored in the storage device for the selected product" as recited is vague and indefinite. It is unclear to the Examiner whether the information that is stored is the same as the prestored information. If this is the same information, it is unclear to the Examiner why there are two different terms used to describe the same information.

As per **claims 1, 20, 31, 41, 47, and 50**, the limitation "updating availability information in the storage device for start dates of use that occur sooner in time than for start dates of use that occur later in time" as recited is vague and indefinite. It is unclear to the Examiner how the system knows what is sooner in time and what is later in time?

As per **claims 1, 20, 31, 41, 47, and 50**, the limitation "updating availability information in the storage device for start dates of use that occur sooner in time than for start dates of use that occur later in time" as recited is vague and indefinite. It is unclear to the Examiner which information is being updated. Is the information regarding the selected product updated? Or is the information that was prestored in the storage device updated?

As per **claims 1, 5, 6, 8, 20, 23, 24, 26, 31, 34, 36, 41, 45, 47, 50, 65, 73, and 80**, the limitation "may" as recited is vague and indefinite. It is unclear whether the recitations after "may" are included as part of the claim limitation.

As per **claims 14, 26, 36, 45, 71, 78, and 79**, the limitation "can be" as recited is vague and indefinite. It is unclear whether the recitations after "can be" are included as part of the claim limitation.

As per **claims 20, 47, 57, and 73**, the following limitation: " wherein said processing element..." is confusing, because it is not clear should the limitations included after the "wherein" clause, be given patentable weight. MPEP 2106 (C) states: "Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. The following are examples of language that may raise a question as to the limiting effect of the language in a claim:

(A)   statements of intended use or field of use,
(B)   "adapted to" or "adapted for" clauses,
(C)   "wherein" clauses, or
(D)   "whereby" clauses."

It appears that *wherein* clause merely states the result of the limitations in the claim and adds nothing to the patentability or substance of the claim.

As per **claims 53, 57, and 61**, the limitation "determining the availability of a requested product by a user" as recited is vague and indefinite. It is unclear to the Examiner whether the determination is made by the user or the product is requested by the user.

As per **claims 65, 73, and 80**, the limitation "dividing the length of use requested by the user into at least two selected start dates and lengths are each less than the maximum length o f use stored in the storage device" as recited is vague and indefinite. It is unclear to the Examiner how the system or user knows which start dates to use.

Also it is unclear to the Examiner how the start date can be less than the maximum

length of use.

Claim Rejections - 35 USC § 101

10.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

11.   **Claims 1-3, 5-21, 23-32, 34-66, 68-73, 75-81, 83-89** are rejected under 35

U.S.C. 101 because the claimed invention lacks patentable utility. The claims, as

currently recited, appear to be directed to nothing more than a series of steps including

accessing, storing, receiving, determining, and updating data such as availability

information without any useful, concrete and tangible result and are therefore deemed

to be non-statutory. While these steps may be concrete and/or tangible, there does not

appear to be any useful result.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13.   **Claims 1-4, 8, 9, 14, 15, 20-22, 26, 31-33, 36, 41, 45-47, and 50** are rejected

under 35 U.S.C. 103(a) as being unpatentable over Fay et al [US 2003/0187851] in

view of Smith et al [US 6,742,033].

As per **claims 1, 20, and 31**, Fay et al discloses a method for providing product

availability information to a user from at least one product source, where use of a

product may begin on one of a plurality of different start dates, said method comprising:

accessing at least one product source and requesting product availability information

concerning at least one product prior to receipt of a product availability request from a

user concerning the product; storing the product availability information received from

the product source in a storage device; receiving a product availability request from a

user concerning a selected product; accessing the information prestored in the storage

device for the selected product; and determining the availability of the selected product

based on at least the availability information prestored in the storage device [0018]. Fay

et al does not disclose updating availability information in the storage device for the

product for start dates of the product that occur sooner in time than for start dates that

occur later in time. However, Smith et al discloses a system for caching time-sensitive

information from the internet, in which information for an event that occurs sooner in

time is updated than for information for an event that occur later in time [col 3, lines 60-

65; col 4, line 2-col 5, line 12]. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify the invention of Fay et al to include

the method disclosed by Smith et al so that the information is updated close to the time

that the user is expected to need it.

As per **claim 2**, Fay et al further discloses wherein said accessing and storing steps access a plurality of product sources, requests product availability information concerning at least one product, and store the product availability information for the at least one product from each product source in the storage device [0017].

As per **claims 3, 21, and 32**, Fay et al further discloses wherein said updating step updates the product availability information stored in the storage device by accessing the product sources, requesting availability information about the product, and storing the product availability information in the storage device [0027].

As per **claims 8 and 45**, Fay et al further discloses wherein the product can be used beginning on a particular start date and may be used for different lengths of use, wherein for each length of use for each start date said accessing and storing steps access product sources, requests availability information concerning the product for the particular start date of use and length of use, and stores the availability information in the storage device [0037].

As per **claims 9 and 46**, Fay et al further discloses wherein for each start date, said updating step updates the product availability information for each length of use associated with the start date [0044].

As per **claims 14, 26, 36**, Fay et al discloses wherein the product can be used beginning on a particular start date and may be used for different lengths of use from the start date [0037]. Fay et al fails to explicitly disclose wherein said storing step only stores product availability information for a maximum number of lengths of use for each start date. However, Fay et al discloses that product availability information is only

stored for a maximum day range from the current date [0047]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include only storing product availability information for a maximum number of lengths of use for each start date to control the number of records stored in the database.

As per **claim 15,** Fay et al further discloses wherein said receiving, accessing, and determining steps comprise: receiving an availability request from a user concerning a selected product for a given start date and length of use; accessing the information prestored in the storage device for the selected product; and determining the availability of the selected product based on the selected start date and length of use from the availability information prestored in the storage device [0037].

As per **claims 41, 47, and 50,** Fay et al discloses a method for providing product availability information to a user from at least one product source, where use of a product may begin on one of a plurality of different start dates, said method comprising: accessing at least one product source and requesting product availability information concerning at least one product for different start dates prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product source in a storage device; determining the availability of a requested product by a user based on at least the availability information prestored in the storage device [0018]. Fay et al does not disclose updating availability information in the storage device for start dates of the product that occur sooner in time than for start dates occur later in time. However, Smith et al discloses a system for

caching time-sensitive information from the internet, in which information for an event

that occurs sooner in time is updated than for information for an event that occur later in

time [col 3, lines 60-65; col 4, line 2-col 5, line 12]. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to modify the

invention of Fay et al to include the method disclosed by Smith et al so that the

information is updated close to the time that the user is expected to need it.

14.   **Claims 5-7, 23, 24, 34, 42-44, 48, 49, 51, and 52** are rejected under 35 U.S.C.

103(a) as being unpatentable over Fay et al [US 2003/0187851] in view of Smith et al

[US 6,742,033], as applied to claims 1, 20, 41, 47, and 50 above, and further in view of

Bonneau et al [U.S. Patent No. 6,657,955].

As per **claims 5, 23, 42, 48, and 51**, Fay et al discloses all the limitations of

claim 1. Fay et al further discloses wherein use of a product may begin on one of a

plurality of different start dates and may be used for different lengths of time [0047-

0048]. Fay et al fails to disclose wherein a decaying exponential function is used to

determine the start dates to update. However, Bonneau et al discloses a decaying

exponential function is used to determine the pre-stored information to update in a

storage device [col 3, lines 62-67]. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the invention of Fay et al to

include the method disclosed by Bonneau et al to avoid providing stale information from

the storage device to the user. Bonneau et al also provides the motivation that updating

the records in the storage device prevents the storage device from reaching its full

occupancy level.

As per **claims 6, 7, 24, 34, 43, 44, 49, and 52,** Fay et al discloses wherein use of

a product may begin on one of a plurality of different start dates and may be used for

different lengths of time wherein said updating step determines which start dates of use

to update the availability information for in the storage device [0047-0048]. Fay et al

fails to disclose wherein determining the start dates to update include using the function:

Start Date=N $^{(\log \text{day}/\log \text{length})}$ where Start Date=date to be queried N=integer number (0,

1, 2, 3, . . . Day) Day=maximum number of days out to be queried Length=maximum

number of days that can be returned in a query list and wherein said function generates

a list of numbers, wherein said method further comprises adding each number in the list

to said current date to determine the product availability for which start dates should be

updated by said updating step in the storage device. However, Bonneau et al discloses

that logarithmic functions can be used to determine the information that needs to be

updated in a storage device [col 3, lines 62-67; col 12, lines 16-22]. Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify

the invention of Fay et al to include the method disclosed by Bonneau et al to avoid

providing stale information from the storage device to the user. Bonneau et al also

provides the motivation that updating the records in the storage device prevents the

storage device from reaching its full occupancy level.

15.   **Claims 10-13, 25, 35, and 53-64** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fay et al [US 2003/0187851] in view of Smith et al [US 6,742,033],

as applied to claims 1, 20, and 31 above, and in further view of in view of McKeeth [US

2003/0105744].

As per **claims 10, 25, and 35**, Fay et al discloses all the limitations of claims 1

and 3. Fay et al further discloses wherein the storage device comprises product

availability information from a plurality of product sources [0016]. Fay et al fails to

disclose wherein said method further comprises providing a score for each product

source based at least on a popularity of the product source, and said updating step

comprises updating the availability information stored in the storage device for each

product source based on the score associated with each product source. However,

McKeeth discloses a method for updating and scoring data based on popularity [0022;

0027]. Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the invention of Fay et al to include the method disclosed

by McKeeth. McKeeth provides the motivation that the method would overcome the

problem of stale information in a database by improving the freshness of the contents in

the database.

As per **claims 11, 54, 58, and 62**, Fay et al fails to disclose wherein said

updating step updates product availability for product sources having higher scores

more than product sources having lower scores. However, McKeeth discloses that

information associated with a source having a higher popularity rating is updated more

often than information having a lower popularity rating [0042]. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth provides the motivation that it is easier to manage vast amounts of data stored in the database by using a method to decide which resources should be updated first and when.

As per **claims 12, 55, 59, and 63,** Fay et al fails to disclose wherein said updating step performs a selected number of updates of product source information for a given update session, said updating step assigns more updates to product sources having higher scores than to product sources having lower scores. However, McKeeth discloses that a predetermined number of updates are performed in an update session and that data having higher scores are updated more frequently (0042; lines 30-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth provides the motivation that it is easier to manage vast amounts of data stored in the database by using a method to decide which resources should be updated first and when.

As per **claims 13, 56, 60, and 64,** Fay et al fails to disclose wherein a minimum number of updates are performed on each product source independent of the product source's associated score. However, McKeeth discloses that a minimum number of updates in performed on the information stored in the storage device regardless of a popularity score [0044]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the

method disclosed by McKeeth to provide information that has a better probability of

being accurate when the user requests the information.

As per **claims 53, 57, and 61**, Fay et al discloses a method for providing product

availability information to a user from at least two product sources, said method

comprising: accessing the at least two product sources and requesting product

availability information concerning at least one product prior to receipt of a product

availability request from a user concerning the product; storing the product availability

information received from the product sources in a storage device; determining the

availability of a requested product by a user based on at least the availability information

prestored in the storage device [0018]. Fay et al fails to disclose providing a score for

each product source based at least on a popularity of the product source; and updating

the availability information stored in the storage device for each product source based

on the score associated with each product source. However, McKeeth discloses a

method for updating and scoring data based on popularity [0022; 0027]. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to

modify the invention of Fay et al to include the method disclosed by McKeeth. McKeeth

provides the motivation that the method would overcome the problem of stale

information in a database by improving the freshness of the contents in the database.

16.   **Claims 86-89** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fay et al [US 2003/0187851] in view of Megiddo et al [US 2004/0098541].

As per **claims 86 and 88**, Fay et al discloses a method for providing product availability information to a user from at least two product sources, said method comprising: accessing the at least two product sources and requesting product availability information concerning at least one product prior to receipt of a product availability request from a user concerning the product; storing the product availability information received from the product sources in a storage device; determining the availability of a requested product by a user based on at least the availability information prestored in the storage device; providing the user with availability information concerning the product from each product source. Fay et al fails to disclose accumulating the number of times that a product source's product relates to an availability request and the number of times that the product source had availability for the requested product; dividing the number of times that the product source had availability for the requested product by the number of times that a product source's product related to an availability request to thereby determine a hit ratio; comparing the hit ratio to a hit ratio threshold; and updating the availability information stored in the storage device for product sources, wherein said updating step increases the number of times availability information is updated for a product source having a hit ratio that is less than or equal to the hit ratio threshold. However, Megiddo et al discloses that a hit ratio is determined and the information in the storage device is updated based on a hit threshold [0042-0046; 0059; 0093]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Megiddo et al. Megiddo et al provides the motivation

that using a information replacement method for updating files helps to maximize the hit ratio while minimizing the memory overhead [0005].

As per **claims 87 and 89**, Fay et al fails to disclose wherein said updating step decreases the number of times availability information is updated for a product source having a hit ratio that is at least as great as the hit ratio threshold. However, Megiddo et al discloses that the frequency of updates is lower for information with a greater hit ratio [0093-0097]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Fay et al to include the method disclosed by Megiddo et al. Megiddo et al provides the motivation that using a information replacement method for updating files helps to maximize the hit ratio while minimizing the memory overhead [0005].

Allowable Subject Matter

17.   **Claims 16-19, 27-30, and 37-40** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18.   **Claims 65-85** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

<u>Examiner's Note:</u> Examiner has cited particular columns and line numbers in the

references as applied to the claims below for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are

applied to the specific limitations within the individual claim, other passages and figures

may apply as well. It is respectfully requested that the applicant, in preparing the

responses, fully consider the references in entirety as potentially teaching all or part of

the claimed invention, as well as the context of the passage as taught by the prior art or

disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Shannon S. Saliard whose telephone number is 571-

272-5587. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30

pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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Washington, D.C. 20231

Or faxed to:

(571) 273-5587 [Informal/ Draft Communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

sss

Shannon S Saliard
Examiner
Art Unit 3639

JOHN W. HAYES
SUPERVISORY PATENT EXAMINER